ANIMAL WATCH

TRACKS

EXPLORE-A-SCIENCE

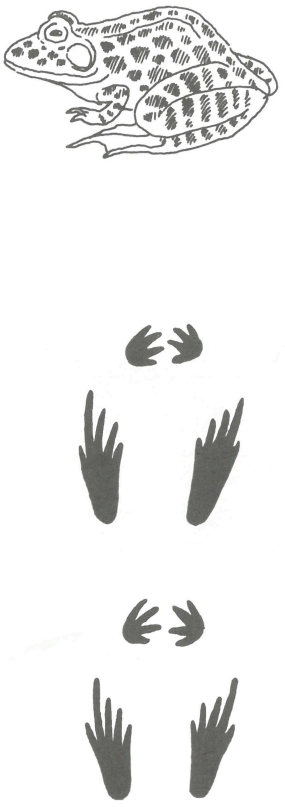
Boston Museum of Science • Learningways, Inc.

Collamore
D.C. Heath and Company

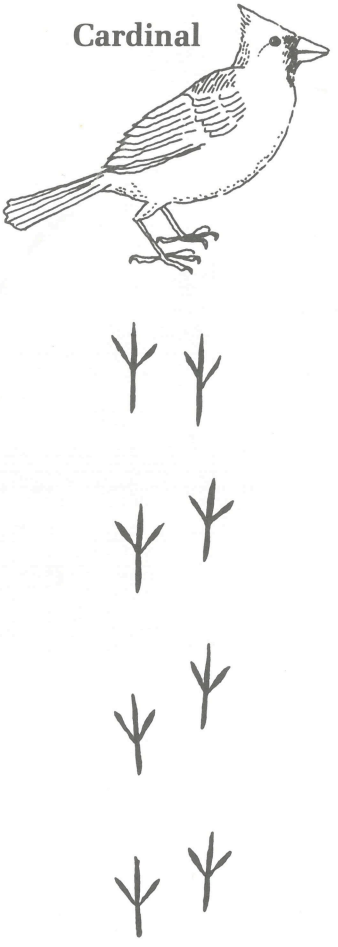
Animals and Their Tracks

Green Sea Turtle

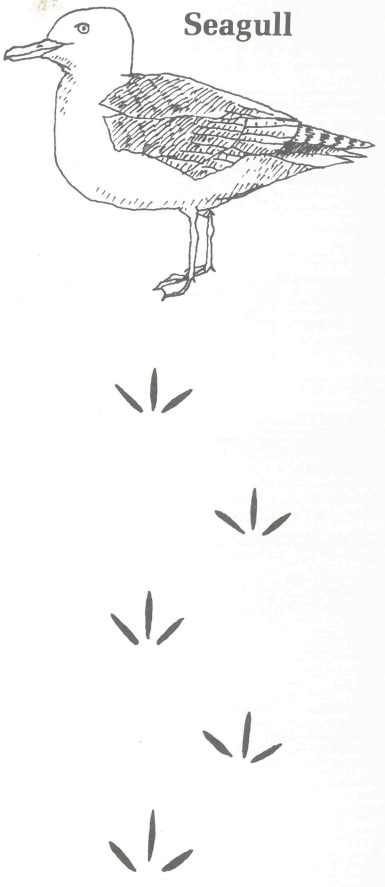
American Bullfrog



Cardinal



Seagull



ANIMAL WATCH
TRACKS

EXPLORE-A-SCIENCE

Written by H. Barclay Holmes with Karen Hoelscher
Illustrated by Maureen McConnell

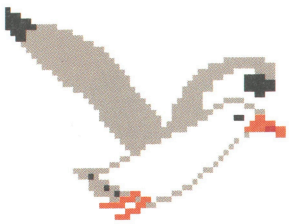
The art appearing in this book was generated
by the Explore-a-Science Software.

Collamore
D.C. Heath and Company

Programmed by Rob Shaver and Peter Andrews
The Explore-a-Science series was developed by
Learningways, Inc. in conjunction with the Boston Museum of Science.
For Learningways, Inc.:
Art Bardige, Hannah Bloch, Robin Coxe-Yeldham,
Angela Faeth, Laura Koller, Henry Olds, Clare Siska,
Sam Wantman
For Boston Museum of Science:
Zabeth Billingham, Stephen Brand, Inabeth Miller,
Beverly Perna
Front cover illustration by Dorothea Sierra
Inside cover illustrations by George Ulrich
Collamore Educational Publishing
1988 D.C. Heath and Company
0-669-16016-4

1 2 3 4 5 6 7 8 9 0

FOLLOWING TRACKS



Have you ever walked along a beach, following the webbed tracks of a seagull? Have you ever tried to follow a pair of human footprints all the way to their owner? If so, you already know something special about tracks.

Each track is a clue to a mystery. Step by step, an animal's story is revealed when you follow its tracks. The tracks give you clues to how an animal lives—how it stays warm in the winter, finds food, or reacts to an attack by a deadly enemy.

Tracks reveal secrets that are not often discovered by people. Most wild animals act naturally only when they are away from people. So, tracking is one important way to learn the everyday activities of animals.

Go to Scene 1. *You can fly the seagull through the sky by putting the pointer on top of it, clicking, and moving it around. You can "drop" it by clicking again. You can move almost anything on the screen by doing this. Look behind the dune grass. Do you see the small, black tracks? Find the animal that made them.*

As a tracker, you will look for clues to animal behavior. You will watch for tracks and the circumstances that surround them. Looking for all types of signs, you will try to uncover some of the secrets of animal life.

Here, you will use your computer to find and compare animal tracks. Remember, though, good trackers do not disturb nature. When they go outside and search for tracks, they leave their discoveries the way they found them.

TRACKER'S DIARY

August

Winslow Beach

Two o'clock

Sunny

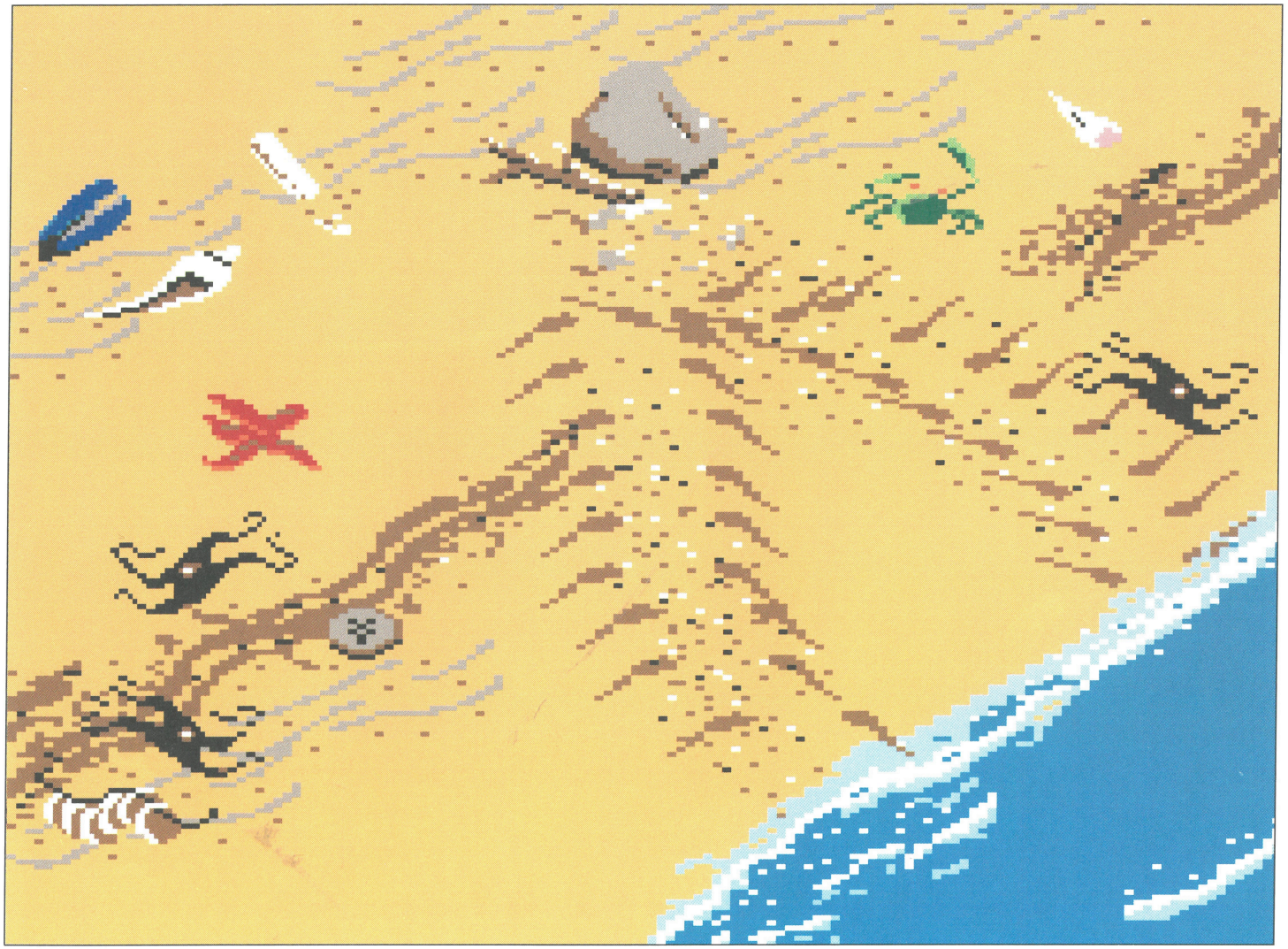
It is calm and sunny today as the waves gently roll onto Winslow Beach. A starfish has washed upon the sand, and several spiral-shaped shells are drying in the sun. Tangled in the seaweed are some crisp, black cases that look like tiny pillows. They are the hollow egg cases of fish called sea skates. Looking closely, I can see a green crab in the sand.

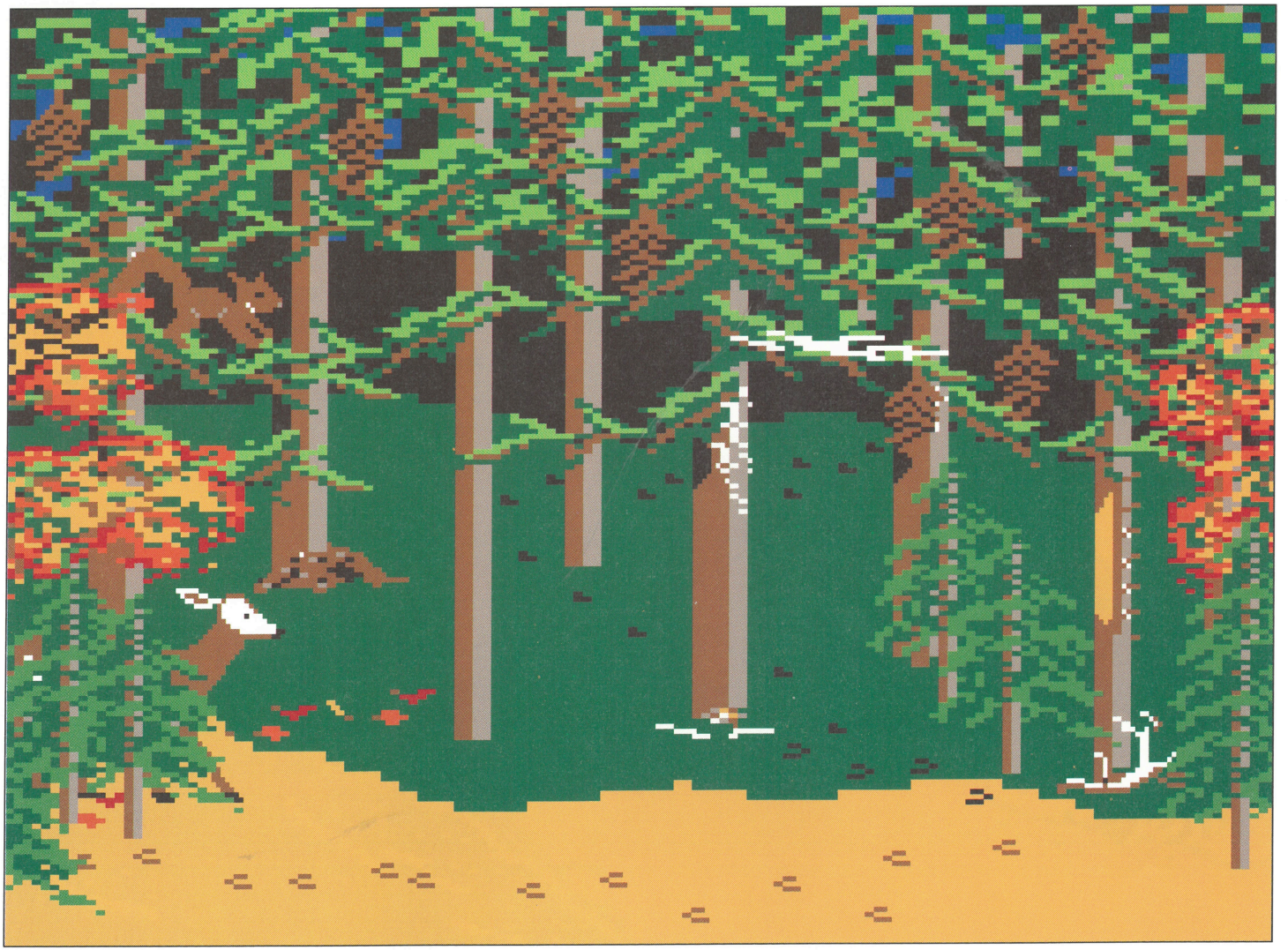
Down near the beach, there is a V-shaped trail in the sand. The wide, bumpy tracks look like tractor-tire marks, but they seem to come from the sea. Another set of the same tracks leads back to the water. To find out what left this trail, we must look closely to search for clues.

Go to Scene 2. *Can you find the green crab? The dark, V-shaped trail was made by an animal that dragged its belly in the sand. Find the same tracks in the field guide at the beginning of this book. What animal made them?*

The animal must have come out of the water for a reason. Can you guess what it was? Move the sand from around the tip of the trail, and observe. What did the animal leave behind?

If you make a discovery, be sure to put it back and cover it again with sand. In about two months, if no one disturbs it, this sandy nest will be full of life. Trackers often have to be patient to discover the whole story.





TRACKER'S DIARY

October

Emerson Forest

7 o'clock

clear

It is fall now in Emerson Forest, and a cool wind is blowing through the pine trees. While looking for tracks, I have discovered other signs of animal life. There are small, white and gray pellets beneath one of the fir trees. These pellets are the remains of an owl's dinner. They are bits of bone and fur that the owl couldn't eat. These signs on the forest floor tell me that an owl lives in the tree above.

To the left, there is a bumpy, black and brown pile beneath another tree. It is a red squirrel *midden*. A midden is a pile of nut shells and scales of pine cones that are left from the red squirrel's dinner. As the squirrel eats, it drops the shells to the ground from the tree above. The owl pellets and squirrel midden are signs. They are clues about animals that usually don't leave tracks because they rarely walk on the ground.

Another animal in this grove has left signs as well as tracks. The many-pointed antlers of a male deer are lying in the grass. They grow on the deer's head in early summer and start to come loose in late winter. When the deer rubs his head against a tree to help remove the antlers, he leaves marks on the the tree—another sign that he has passed this way.

Go to Scene 3. *Can you find the red squirrel? Click on it and make it hop from branch to branch. Find its midden and click on it for a closer look. Now click on the owl pellets.*

Bring the owl down from the menu and fly it through the forest. Where would it perch? What other sign marks its tree?

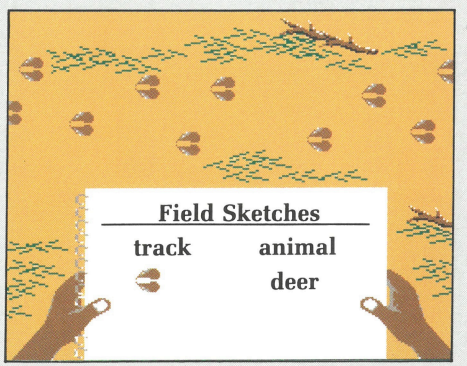
Match the tracks with those in your field guide. Find the animal that made them. This deer is a female. Can you find the old antlers of a male deer? Which tree did he rub them against?

COLLECTING CLUES

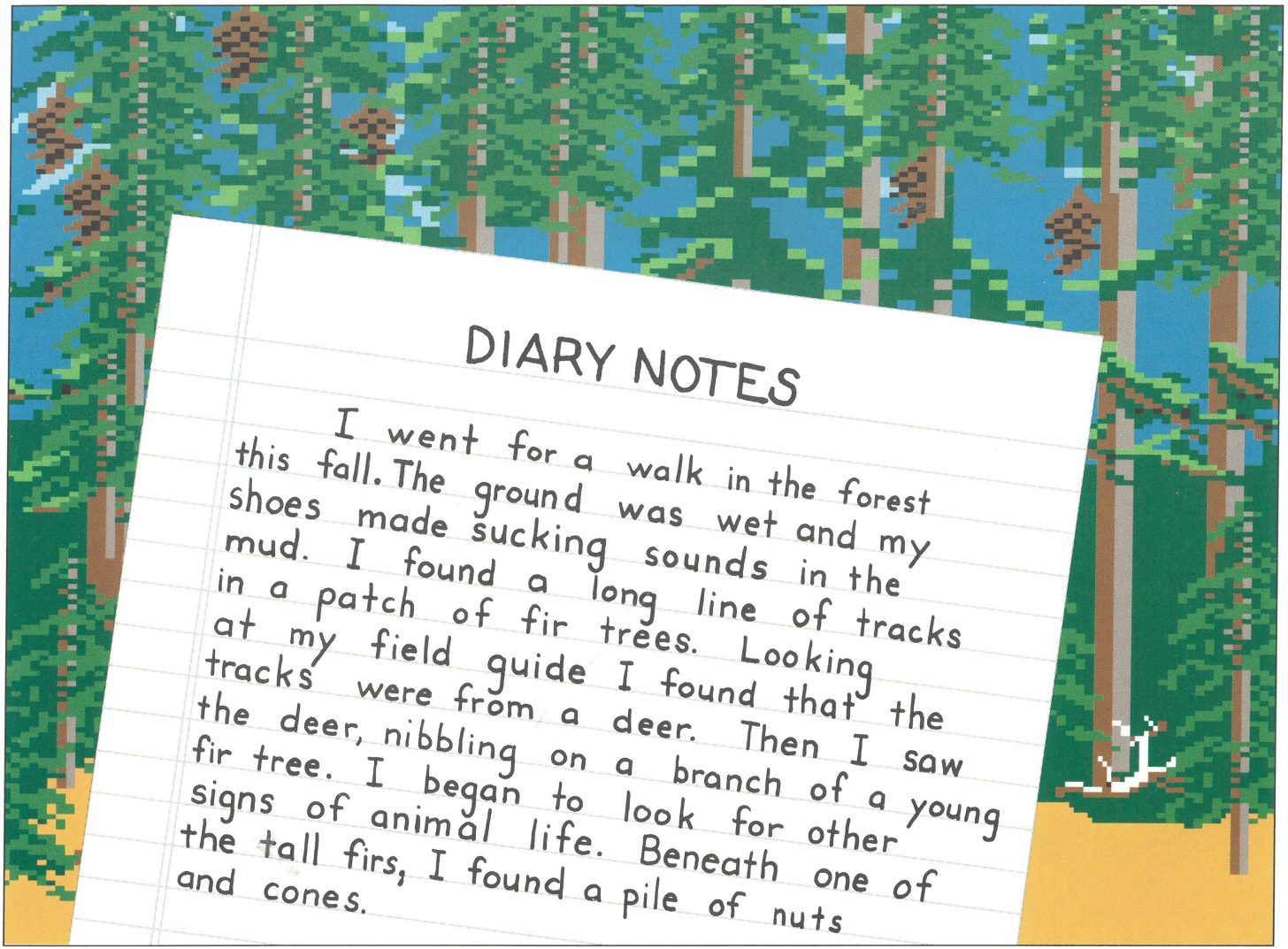
As more and more clues are discovered, a tracker may start to see a story emerge. From the story, the tracker can predict where an animal is, where it will stop and eat, and where it might live. The more stories a tracker finds, the better he or she can understand how an animal behaves.

As you explore, you will try to collect many clues, look at them, and make some predictions. You will keep two notebooks on the computer. In the *Field Sketches*, you will put the tracks you find and name the animal that made them. Use your field guide to identify them. In the *Diary Notes*, you will write a story about what you've seen. You may want to save or print your work after you complete each notebook.

Go to Scene 4. *Here you can look more closely at the forest floor. Click on the tracks, and drop them on your Field Sketches pad. Compare them with the field guide in this book. Then type in the name of the animal that made them. What other signs appear in the forest?*



Go to Scene 5. *Describe what you have seen in Emerson Forest today, and tell a story about what you think happened. Here is my description. Your story might be different.*


DIARY NOTES
I went for a walk in the forest this fall. The ground was wet and my shoes made sucking sounds in the mud. I found a long line of tracks in a patch of fir trees. Looking at my field guide I found that the tracks were from a deer. Then I saw the deer, nibbling on a branch of a young fir tree. I began to look for other signs of animal life. Beneath one of the tall firs, I found a pile of nuts and cones.

TRACKER'S DIARY

December

Spencer's Pond

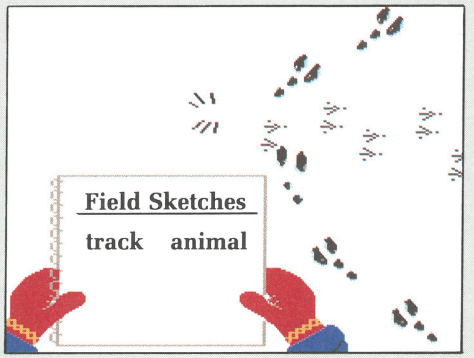
Noon

Clear, Cold

It is winter now. Snow and ice cover Spencer's Pond, making it easy to see and follow tracks. I can see a long trail of them, each one looking like a "Y" turned on its side. To the right is a large mound of sticks.

The tracks are those of a snowshoe hare. When the snowshow hops, its back feet land ahead of its front feet, so the bigger footprints are in front. Examining the tracks, I can tell that the hare was headed in this direction. It must have come from over the hill and stopped somewhere nearby.

Go to Scene 6. *Dig in the snow near the tracks. The hare is in a small hole we call a "form", created by its warm body. The form protects the hare from cold winter winds. Other animals are hiding from the cold. Cut away the ice to see. Find their feeding pile. Take one over to chew on a stick.*



Deep in the mud below the ice, there is yet another animal. It holds very still, as if it were sleeping. In spring, it will live near the green, wet pond. Can you find it?

Go to Scene 7. *There are signs here that tell a story: two sets of tracks, a wing print, and a light spray of snow over one set of tracks. Fill in your Field Sketches.*

Go to Scene 8. *Tell what you think happened.*

TRACKER'S DIARY

April

Spencer's Pond

3 o'clock

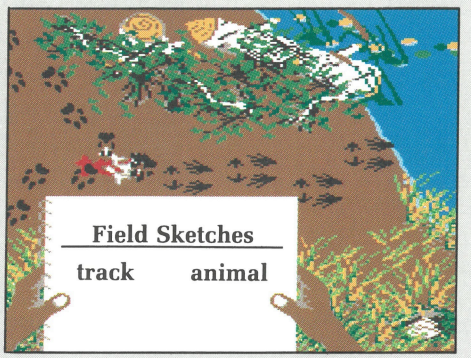
Some clouds,

warm

Spring has returned to Spencer's Pond, bringing with it many new plants and animals. A pair of redwing blackbirds has returned from the South, and new cattails and arrowhead plants have grown up around the shore.

I see many clues that tell me that the beavers are close. On a little island, several trees have been cut down by the beaver's sharp teeth. The water is very calm, indicating that somewhere on the edge of the pond there is a dam that keeps water from rushing out. On the right, I see the sturdy house the beavers built from sticks and logs. It looks much different here now that the snow has melted.

Go to Scene 9. *Some signs in nature, like downed trees and beaver dams, last longer than others. A mallard duck has settled in the pond. Move him around. What trails behind him? Can you see the signs in the pond left by a frog? Find the frog. What else can you find in the pond?*



The brown-feathered female blackbird sits in her nest. Pick her up. What is she sitting on? Look at the tracks in the sky. What made them?

Go to Scene 10. *Another story is told by these signs. Fill in your Field Sketches.*

Go to Scene 11. *Tell what you think happened.*

TRACKER'S DIARY

July

Winslow Beach

2 o'clock

Sunny

It is summer again, and I have returned to Winslow Beach. It looks very much the same as it did a year ago. Seaweed, egg cases, and a starfish are again scattered about the beach. A large jellyfish has washed up onto the sand.

I don't see any long V-shaped trails this year, but I see another very unusual set of tracks. They are very tiny, and they seem to start in the dry sand, go down to the beach, and then disappear in the sea.

When I follow the tracks, I see something special wiggling beneath the sand—baby turtles! Some of them have just hatched and are heading for the sea!

There are other tracks, too. They cross the baby turtle tracks, and then they are gone. Along with them, I see many human signs—trash. It looks like many people were here recently, and they were very careless.

Go to Scene 12. *Can you find the baby turtles under the sand? Go to the menu to find the animal that made the other tracks. Do you think all of the babies made it to the sea? What do you think might have happened to them? Pull down the trash can from the object menu and clean up the trash.*

Go to Scene 13. *Complete your Field Sketches.*

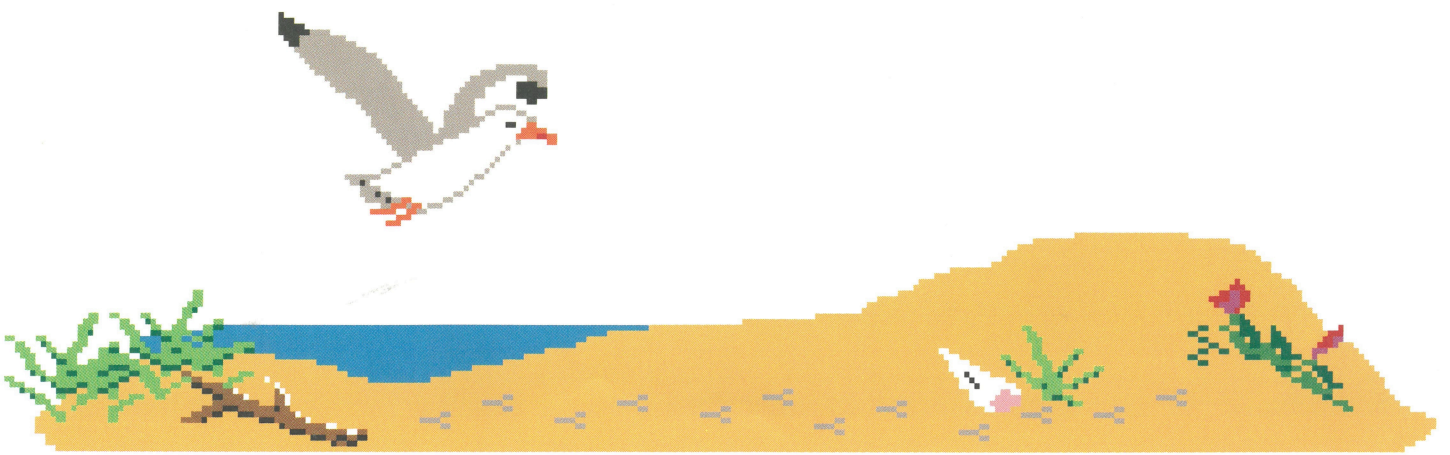
Go to Scene 14. *Complete your Diary Notes.*

BECOMING A TRACKER

Now you see how interesting tracking can be. Tracks and signs are clues, and you can be the detective that uncovers them. As a tracker, you can discover the clues, read the stories they tell, and understand the animals that created them.

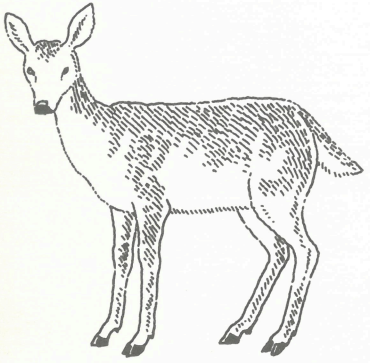
But a track story reveals itself slowly, bit by bit. To unravel it, you have to be patient and observant, take notes, do research, and make predictions. The more you do this, the more you will know about an animal's life. Long before you see the animal at the end of its trail, you will start to see what the animal sees, and hear what the animal hears. You will know the animal in its natural world.

Go to Scene 15. *Imagine yourself in the world of animals. Go ahead and explore!*

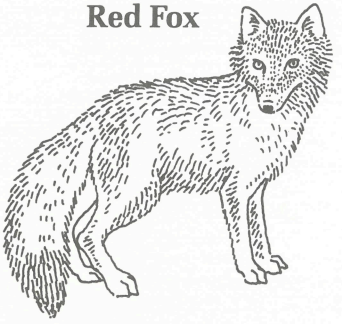


Animals and Their Tracks

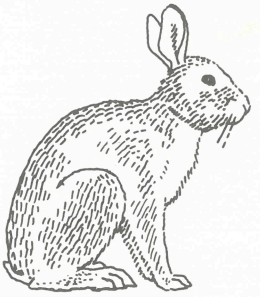
White-tailed Deer



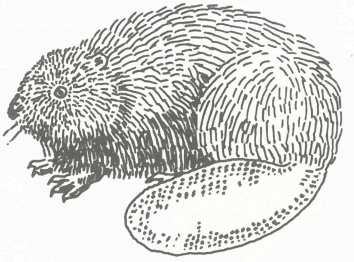
Red Fox



Snowshoe Hare



Beaver



Collamore
D.C. Heath and Company

16016-4